MANAGEMENT OF ULCERATIVE COLITIS

*Transcription of a Panel Meeting on Therapeutics**

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MODERATOR BURRILL B. CROHN: The topic assigned to us today is the *Management of Ulcerative Colitis.*

The incidence of ulcerative colitis has increased tremendously during recent years, or at least the recognition of the disease has increased. I remember when as an intern at The Mount Sinai Hospital 50 years ago a case of ulcerative colitis was rare and was regarded as something most unusual. At that time, you will recall, the sigmoidoscope was a long instrument which had no electric light; a nurse held a candle or lamp and the examiner used a head mirror. No radiography was available so that the recognition of the disease was most difficult, if it did occur with the frequency with which it occurs today. Today the hospitals are full and many beds are occupied by patients with ulcerative colitis. With the apparently greatly increased number of patients with this condition, the problems of treatment and management have increased progressively over the years.

I shall first ask Dr. Flood to discuss the medical aspects of the management of ulcerative colitis.

DR. CHARLES A. FLOOD: Since this is a discussion mainly of the management of this disease, little need be said concerning etiology or diagnosis except to state that its etiology is still unknown; that many theories have been suggested, and although there is a certain amount of evidence to support a number of them, I think the majority of those especially interested in ulcerative colitis still regard it as a disease of unknown etiology and, therefore, particularly difficult to manage medically.

The diagnosis of ulcerative colitis is relatively simple. The clinical picture is usually sufficient to suggest the presence of this disease. The anatomical changes which accompany it can be visualized on proctoscopic examination and on x-ray. Of these two methods of examination, the proctoscopic examination is apt to be more revealing in most cases. About 90 per cent of patients with ulcerative colitis have visible changes in the rectum and rectosigmoid. The x-ray examination may reveal nothing or it may reveal changes which might suggest the possibility of ulcerative colitis but still be compatible with a normal colon, or the changes disclosed by x-ray may be typically those of this disease.

In the management of patients with ulcerative colitis it is important to attempt to classify the disease in terms of its extent and its severity. There is a wide range of severity in this disease, all the way from the

case of mild proctitis to the severely ill patient.

In mild proctitis, which most people believe is a manifestation of ulcerative colitis, the patient has few symptoms, the diarrhea is mild, there may be a little blood in the stool. Proctoscopy reveals inflammatory changes and x-ray examination is essentially negative. In such a situation the disease runs a mild course. The patient will improve under expectant treatment of any type, is apt to go into early symptomatic remission, only to exhibit a recurrence of symptoms at some future date. In those patients whose disease is initially limited to proctitis, the disease seldom seems to extend up the colon to any extent. Their medical management seems to be relatively simple.

At the other extreme is the patient with a fulminating picture of ulcerative colitis, the severely ill individual with fever and other constitutional symptoms, generally with a total involvement of the colon, although this picture may also be present in patients who on x-ray appear to have only partial involvement of the colon. In many respects these patients present a particularly difficult problem in management. They are often so seriously ill that the question of the necessity for early surgery arises. They present problems in the maintenance of fluid and electrolyte balance. They often are malnourished. They often present serious neuropsychiatric problems, and this is one of the most difficult forms of the disease to manage.

Between these two extremes of the severely ill patient and the patient with proctitis are found the majority of patients with ulcerative colitis who have involvement of the rectum and of the colon with symptoms of varying degrees of severity.

As a general rule, treatment in the management of this disease is largely supportive in terms of diet, sedation, vitamin therapy, the use of antibiotics or sulfonamide drugs, the use of transfusions and other supportive measures. The majority of patients on such a regimen will go into symptomatic remission. A certain number of patients will require the use of other modes of therapy, and in recent years the steroids have become available for treatment, particularly of the sicker patients.

We have recently been interested in reviewing our results of management of these different types of ulcerative colitis in the clinic at the Presbyterian Hospital, and with your permission, I would like to summarize very briefly the long term results as we have seen them.

Only a few patients have gone into complete remission and remained in remission over a period of years. Approximately 95 per cent of our patients with chronic ulcerative colitis, even though they have periods of remission have, as they have been followed over the years, had a recurrence of symptoms at some later date. As mentioned earlier, the best outlook is in the patients with proctitis. These patients are seldom incapacitated by their symptoms and are easy to manage. The patients with fulminating disease have had a very disappointing course on medical treatment. For example, in a group of some 20 patients who ran a high and continuous fever for over two weeks, only four of the 20 remain under medical treatment. The others were either operated on early or later in the course of the disease, or have died. The results in the fulminating picture have been sufficiently disappointing to lead us to believe that early surgery should be seriously considered more often in these circumstances.

The problem of the patient with less severe symptoms but with incapacitating symptoms which last for long periods of time is also difficult to manage. The patient who has continuing diarrhea, with six to ten stools a day for a period of several months, who does not respond to simple supportive treatment, often becomes very discouraged, often seeks help elsewhere, presents a problem as to whether we should continue with medical treatment, or whether we should have recourse to surgery. In this group it is very difficult to set down any rules of action. The patients who have less severe symptoms, however, under current conditions may do extremely well under steroid therapy.

In our own experience we have largely limited the use of steroids to those patients who have failed to respond to other simpler measures. In using steroids for the sicker patients under these conditions, it has been our experience that approximately half of these patients do respond in terms of disappearance of constitutional symptoms, control of the diarrhea, increased sense of well being and improved nutrition. As patients have been followed over a period of time under steroid therapy, or subsequent to it, we have not been able to convince ourselves that the use of steroids has modified the long term course of the disease. This is a problem for which I believe there is no clearcut solution at the present time. Our impression is that steroid therapy used in ulcerative colitis is purely suppressive, suppressing the inflammatory response and eliminating in large degree the symptoms without

modifying the underlying process. Therefore, it remains to be seen how useful steroid therapy will be in the long term management of the patient, although it is clear that it is of great value in the immediate relief of the severely ill. The use of steroids has, in some instances, been accompanied by unfavorable results, both the undesirable complications which arise in the use of steroids for any disease and those complications and problems which are peculiar to ulcerative colitis. We have had a few patients who developed brisk bleeding and perforation when these drugs were used. When the patient is on steroid therapy it may be extremely difficult to determine his exact clinical status, and perforation may occur and not be recognized.

We have also had difficulty in certain instances with patients with severe ulcerative colitis who, after a very brief period of observation, had been placed on steroid therapy and have had symptomatic remission to some degree, but who subsequently do not continue to improve, and the question then arises as to whether surgical therapy should be recommended. At times it is extremely difficult to evaluate the severity of the disease in patients who are under steroid therapy. In some instances it may be advisable, with seriously ill patients, to withhold steroid therapy for a sufficient period of time to establish whether or not the clinical picture already warrants surgical intervention.

The present status, then, of this problem is that the majority of patients will have symptomatic remission under treatment with available medical measures. We have subjected approximately 20 per cent of our patients to surgery. I believe the incidence varies in different clinics, but this is probably an average figure at the present time. In the future we hope we shall learn to select better those patients for whom surgery is indicated and for whom medical treatment should be interrupted earlier than it has been in the past.

MODERATOR CROHN: Thank you, Dr. Flood. If our audience does not ask you questions, I shall do so!—particularly regarding some points in your use of the steroids.

I shall next call upon Dr. George Engel. I am responsible for bringing Dr. Engel from Rochester, N. Y., to present the psychosomatic aspects of ulcerative colitis. I brought him down to learn his views. I suspect he thinks I need a lesson! Dr. Engel!

DR. GEORGE L. ENGEL: Before presenting my remarks I would like to make one identifying point about myself, namely, that while I have

been interested in the psychological aspects of patients with ulcerative colitis, I have seen those patients as an internist with psychological training. I think this is of some importance in respect to my points of view because I have taken full care of many of these patients while with others I have worked with another internist or with a surgeon. Hence my roles have ranged from the physician to the psychotherapist.

I would also like to clear the air on another point. What I shall have to say about the psychological aspects of treatment of ulcerative colitis is not in any way to be interpreted as placing something called psychotherapy in opposition to other techniques of treatment which are directed toward different aspects of the care of the patient. Accordingly, many of the things that Dr. Flood has spoken of also fall in the area of our treatment program, and I am sure that many of the things that Dr. Garlock will have to say will also fall in the same area. Now, since our time is extremely limited, I will make some dogmatic statements which you are welcome to challenge afterwards.

My first dogmatic statement is that, so far, there is no known technique for the cure of ulcerative colitis, be it medical, surgical, or psychological. The closest approach to a known cure for ulcerative colitis is the surgical approach, namely, ileostomy and total colectomy; but in my experience a significant number of patients so treated remain vulnerable to the development of an ulcerative ileitis, (to be distinguished from the regional ileitis to which Dr. Crohn's name is attached).

The second simplified and dogmatic statement applies to the setting in which the disease becomes manifest. We have been interested to learn as much as we possibly can of the conditions, the circumstances, the settings, and the factors which may play a role in determining when a patient falls ill and how and when a patient recovers. In these observations we have been impressed that one phenomenon seems to appear over and over again. We regard it not as a primary etiologic factor but rather as a condition, perhaps necessary but not a sufficient condition for the genesis of the process in the colon that we call ulcerative colitis. It is that these patients are characterized by an unusual vulnerability to the loss of loved or invested persons. Let me try to phrase that in a broader sense: All people have relationships with other people, their families, friends, as well as jobs, work, etc., etc. All people respond to loss or threats of loss of loved persons, of job, prestige, of position, etc., with a variety of reactions, the most normal of which is grief.

Those patients who are vulnerable to ulcerative colitis—note that I say vulnerable to ulcerative colitis because this infers there is some underlying pre-existing condition which must exist—seem to be peculiarly sensitive to such losses and to be inclined to develop the condition known as ulcerative colitis in relationship to such losses. I have to be somewhat more precise than that because our more microscopic examination of the circumstances and the responses reveals that it is when the patient who experiences a real, threatened or phantasied loss reacts with a mood or an affect state which could be characterized by helplessness, hopelessness, or "this is too much, I can't go on," or "it is too much for me, I don't know what to do," that the distinctive mucosal —submucosal reaction of the bowel which we call ulcerative colitis develops. This may occur within a matter of hours or days.

Conversely when these patients are successful in overcoming such a reaction to loss, they may very well overcome the attack of ulcerative colitis, provided the damage to the bowel has not progressed to the point where regeneration and recovery are no longer possible. Also, if these patients experience a loss, real, threatened or phantasied, but do not become hopeless or despairing, they will often develop some other symptom or illness, but not ulcerative colitis. The most common alternative symptom is headache. I should emphasize that the affect state just described is not necessarily conscious or acknowledged by the patient.

This may seem to you like a highly abstract, theoretical, and impractical point, yet from my experience this proves to be the crucial point in the treatment of patients with ulcerative colitis regardless of the technique used, because it develops that the person with whom the patient establishes the relationship which compensates to some degree for the real, threatened or phantasied loss is usually the doctor. The doctor thus becomes a person of great help or threat to his patient because the doctor who is ignorant of this fact may unwittingly help this patient tremendously by being a good doctor, taking good care of the patient's medical and other related problems, but he may also unwittingly harm his patient by not recognizing the patient's dependence on him. He may fail to appreciate the significance to the patient of his leaving town, failing to see his patient, breaking an appointment, or in other ways leaving the patient in the situation of not feeling taken care of. I emphasize that this principle operates regardless of what

other measures are used.

In discussing medical treatment, Dr. Flood repeatedly used the words "supportive treatment". In my experience, the effectiveness of this supportive treatment is very closely linked to the relationship with the physician. I have repeatedly seen drugs and techniques of treatment which were effective the first time, fail the second time simply because the patient invested the drug with the power of the physician. When he relapses, this element is now missing.

In respect to surgical treatment, I have been impressed that patients who come to surgery without a satisfactory relationship with their physician, be it the medical man or the surgeon, do poorly. In our own series of 40 patients, of the 9 patients who died, 8 were patients who did not establish relationship with any physician in the hospital. The ninth patient had a lengthy psychotherapeutic relationship with me yet died two weeks post total colectomy and ileostomy with a fulminating, ulcerative ileitis when all three of her physicians, her surgeon, internist, and myself, simultaneously went out of town to meetings. From this tragic experience I learned the importance of being on hand when my patient is required to undergo an operative procedure.

I would close, then, with this general statement, which I presume there will be opportunity to elaborate on later: Regardless of the technique of treatment that one embarks on, be it medical, surgical, or psychological, all the aspects of the disease must be kept in mind, all aspects of the process that is going on. The physician who takes care of the patient with ulcerative colitis should assume that he is undertaking the care of this patient indefinitely. By this I don't mean that he has to continue to see him at frequent intervals, but rather that the patient should continue to regard him as his physician even after long and successful psychotherapy. In those instances in which there is irreversible change in the bowel, where over a period of months there is continued diarrhea, or bleeding, or where radiological evidence shows extensive changes in the bowel wall, or where there is development of abscesses, fistulous tracts, etc., it would be my judgment now that the primary task of the psychotherapist, whether this psychotherapist be a psychiatrist or whether he be the internist who is dealing with this patient with psychotherapeutic insight, should be to prepare the patient for surgery bearing in mind that the optimum time for surgery is

going to be that time at which the patient has achieved his strongest relationship with the physician.

There are also certain contra-indications to surgery, which I presume Dr. Garlock will talk about. An obvious one is in the patient with disease of the ileum. What I have to say would not apply in the same degree to the patient whose disease is restricted to a very small portion of the bowel, where it is possible to temporize much longer. The main point that I want to emphasize is that the relationship to the physician is the most important tool we have in the treatment of ulcerative colitis.

MODERATER CROHN: Thank you, Dr. Engel. That is a very enlightening statement of the relationship of ulcerative colitis to psychosomatic factors and of the role of psychotherapy in the management of disease. I think by this time every physician who treats ulcerative colitis knows that if he is not in complete emotional rapport with his patient, if the patient has not a fondness for him, if the physician does not like the patient, if there is no empathy between them, the physician is doomed to fail. Our successes occur when we have a willing and admiring patient.

In Dr. Engel's presentation I missed the question of the role and relationship of the mother to the patient, which is so commonly present in cases of ulcerative colitis, and which is so well represented in this disease.

With our best efforts we fail in a fairly large percentage of cases. We do the best we can but all too frequently we eventually have to call upon the surgeon to effect a complete radical cure of a disease which otherwise would often be regarded as relatively incurable.

Dr. Garlock, will you present the surgical aspects of this problem, including both the surgical successes and failures in the management of this disease.

DR. JOHN H. GARLOCK: In any disease, the cause of which is completely unkown, all forms of therapy are essentially empiric, whether it be supportive therapy, psychotherapy, or surgical therapy. However, I would like to emphasize that one must constantly keep in mind the pathological process that is going on in the bowel, since it is upon this basis that surgical therapy is considered.

I have said that the therapy is empiric, which reminds me of an excellent example of what I mean. It seems worth while to repeat the story here. It concerns a boy on the wards in our hospital who was

acutely ill with fulminating ulcerative colitis. The incident occurred about eight or ten years ago, when he was on the medical service. Every form of therapy had been employed. There were no steroids available at that time, of course. We were about to be called in to do an emergency ileostomy when the assistant resident approached his resident and said, "That boy in the back of the ward with acute ulcerative colitis would like to have a bologna sandwich. Have you any objection if I go down and buy him one?" and the resident said, "Well, we have tried everything else, we might try that," and he did. Curiously enough this patient went on to a remission within 48 hours. Now that is empiric therapy! I am quite sure that the bologna sandwich had nothing to do with his remission. I am also quite sure Dr. Engel will say that there was a definite relationship established between him and the assistant resident. That may have been a factor.

Now we have gone through a period of trial and error during the last 20 years to determine the rationale and indications for surgical therapy. Our experience at Mount Sinai Hospital has been the same as Dr. Flood's with respect to the incidence of surgical therapy in the total group. Approximately 22 per cent of the ulcerative colitis admissions to the hospital require surgical therapy. We have tried to make the treatment of ulcerative colitis a group problem in which the gastroenterologist, the internist, the psychiatrist, the surgeon, the social service department, and the nursing staff are all parts of a team, and we try to determine by reviewing these patients daily which ones will require surgical treatment. Over the years we have gradually arrived at certain criteria which I should like to present to you today.

In the first place, we believe that surgery is indicated when extensive irreversible pathological changes have taken place in the bowel, colon and rectum, which can be determined by sigmoidoscopic examination, the clinical course of the patient, and the barium enema.

In the second place, there is a definite indication for surgery to save life in the acute fulminating variety of this disease. I consider this variety the most difficult of all to treat from the standpoint of trying to determine whether surgery is indicated at all. It must be emphasized that, characteristically, ulcerative colitis of the acute variety for some unknown reason may abort abruptly with complete defeverescence of symptoms and resultant apparent complete clinical remission which may last for years. More often than not, surgery will be definitely

indicated in order to save life.

Third, we believe that the devolpment of polypi, inflammatory polypi, in the colon in the course of chronic ulcerative colitis must be considered a positive indication for surgery because it is fairly well agreed throughout the country that the incidence of carcinoma, secondary to polypi on the basis of an ulcerative colitis, is fairly high.

Fourth, we think that surgical treatment is indicated for the pathological complications of the disease. We classify these as, (a) pericolonic abscess due to slow perforation of an ulcer, usually in the left colon, the formation of pericolonic abscess which is incised and drained and followed by a persistent fecal fistula. This indicates irreversible change in the bowel, and can only be cured by removing the offending organ; (b) the presence of extensive perianal fistulae or rectovaginal fistulae in the female, is considered a positive indication for surgery in order to effect a cure; (c) is the not infrequent complication of acute exsanguinating hemorrhage from the diseased colon which frequently calls for emergency surgery to save life; and (d) the complication of impending perforation or acute perforation is a positive indication for surgical intervention.

I think that covers the surgical therapy. We will go into some of the details later, I hope.

MODERATOR CROHN: Very good, Dr. Garlock.

May I have some questions from the audience? If not, I shall have to heckle these speakers myself, and I would like to have some assistance from you. I have one question, directed to Dr. Engel: In the employment of psychotherapy as an adjunctive treatment, should the gastroenterologist or the internist, or the general practitioner do this or should the patient be referred to a specialist in psychotherapy?

DR. ENGEL: That is an extraordinarily difficult question to answer. It depends a good deal on where you are practicing and who is available. I think one of the greatest problems is the availability of trained people. It should be implicit in what I said that a particular awareness on the part of the physician of the significance of his relationship to the patient is in itself an important if not essential psychotherapeutic measure in the care of the patient.

It is very difficult for me to prescribe what kind of an attitude or how you should behave toward your patient, yet I think your criterion should be based on knowing the significance to the patient of these

kinds of losses or threatened losses, including the loss of the doctor. For instance, I never leave town without letting my ulcerative colitis patients know where I am, and how I can be reached; but I am very infrequently called. It is the knowledge that I *can* be called that is important, the knowledge that they know where they can reach me. But it is catastrophic if the patient calls me up and learns that I am not accessible. I have had patients who have carried a prescription in their purses, this being the only means of sustaining a contact. Recently I had a patient whom I had not seen for a year who moved to a new house only to discover that the telephone company had not yet installed any cables in that neighborhood, and the telephone could not be installed in their home for an indefinite period of time. The patient wrote me a letter, which I interpreted to be a warning that trouble was ahead unless easy access to me was quickly reestablished. I called the telephone company and on the basis of a medical need,—that the patient might bleed,—arranged with them to have a temporary line put in. That evening the patient's husband called me to say that his wife was having a relapse. I gave him the information that I had already requested the telephone company to put in a line and had been assured that it would be installed in a couple of days. I prescribed some Demerol, and within 24 hours the attack had subsided. The point here is that the maintenance of the contact was the psychotherapeutic maneuver. This kind of psychotherapy should be within the province of any good physician, and many good physicians do this without knowing the special significance of what they are doing.

When it comes to a more intensive type of psychotherapy involving reorganization of personality structure, then I think one has to have some kind of training. I think there are some internists who have that kind of training, and we are training such internists in Rochester. By and large, internists do not have this kind of training. If a psychiatrist is to do this, it should be a psychiatrist who has a very good understanding of the dangerous situation that he is dealing with because ulcerative colitis is a dangerous disease. Things can happen very quickly and disastrously.

MODERATOR CROHN: *I think part of that question was: Would you call in a psychiatrist in the presence of an acute fulminating febrile ulcerative colitis?*

DR. ENGEL: I doubt it. Again, I would have to know whom I was

calling in. When I am called in in such a situation, which happens not infrequently, I find that I have to function first as an internist. The patient is too sick to deal with psychological content, and I will not accept such a referral, whether it come from the medical man or the surgeon, without his understanding that in order for me to be of use I must be able to leave orders, to change orders, and to participate actively in the medical care of this patient. Otherwise there is little or no hope that a relationship can be established. In Rochester I think a number of physicians have come to recognize that you can't be all things to all people, that there are some patients that you, as an individual, can't relate to, and if so, you should get help from someone else who can relate. Neither I, nor anybody else, can relate to all patients.

MODERATOR CROHN: I asked that question because the patient is often so sick that he can't raise his head. I have had unfortunate experiences in asking a psychiatrist to achieve a therapeutic result in a prostrated patient with a temperature of 103° F.

We have so many questions that we will have to be brief in our answers! Dr. Garlock: At what age, if at all, would you consider a total colectomy in youngsters of 8 to 13 years of age who have ulcerative colitis? Do you operate on that type of patient?

DR. GARLOCK: That is a "spiked" question!

MODERATOR CROHN: It *is* a "spiked" question because we have at the moment a 10½ year old girl whom Dr. Garlock and I are jointly treating. She is so sick that I have urged colectomy and ileostomy but Dr. Garlock is holding out day after day.

DR. GARLOCK: It seems like a strange situation where the surgeon refuses to operate and the gastroenterologist insists on it. That is exactly the case in this instance. It is well known, at least it is so in my experience and in the experience of those, like Dr. Robert Gross in Boston, who see many sick children, that these children under the age of 10 to 12 years, do very poorly when operated upon for acute fulminating ulcerative colitis. The mortality is high. They don't respond to the ileostomy as quickly as adults do. The outlook is pretty bad. On the other hand, there is a high incidence of spontaneous recovery in children. I have been loath to operate on children for acute ulcerative colitis, and it is for these reasons that I have deferred operating on the little girl in question. Very often one uses clinical hunches when treating sick patients, and it has been my hunch—perhaps it is based somewhat

on past experience that this girl will have a spontaneous remission without benefit of surgery.

MODERATOR CROHN: I hope so!

Dr. Garlock, someone would like to know whether surgery for ulcerative colitis always means ileostomy and complete colectomy?

DR. GARLOCK: Except for regional ulcerative colitis or right sided colitis, ulcerative colitis may be considered a universal disease involving both the rectum and colon. There are segmental varieties, but these are in the very small minority. It is my feeling from an experience of some 300 odd cases now treated surgically, that once you are committed to surgical therapy the job must be finished to include removal of the colon and also the rectum. I do not subscribe to the occasionally propounded proposal that, after doing an ileostomy for early ulcerative colitis, for instance, one could close the ileostomy at a later date without removing the colon or rectum. The results have been disastrous in this group of cases as the literature will inform you. We are therefore committed to a total job once an ileostomy is done.

MODERATOR CROHN: *Dr. Flood, someone would like to know if there are lasting cures with steroid therapy, particularly in the early cases? Are the results permanent? You mentioned it in your talk, but speak of it again in the early cases.*

DR. FLOOD: The largest series that I am aware of, in which the use of steroids has been reported, is that of Truelove and Witts in England, who treated about 100 patients including alternate controls with dummy tablets. They have reported that, after a period of treatment of six weeks with cortisone in the standard dosage, a follow-up survey about nine months later showed that in most instances there was no difference between the control group and the group who had been treated with steroids. However, in the patients who had the disease for only a short period of time, that is for less than two years, there seemed to be an advantage for those who had received steroid therapy.

MODERATOR CROHN: A few years ago the late Dr. Frank Lahey observed in one of his articles that, in his opinion, the use of steroids would eliminate emergency surgery in cases of acute fulminating ulcerative colitis. I myself am tremendously impressed with the striking effects of steroids properly applied to cases of fulminating colitis. Not so much in the chronic cases, but in acute cases the results are exceedingly striking.

While on the subject I should like to ask Dr. Garlock and Dr. Flood a question I have in mind. Much is heard about the increased risk of operation when the patient has been under prolonged steroid therapy. Dr. Flood, have you met this problem? I know Dr. Garlock has encountered this situation. I would like to know your views.

DR. FLOOD: With increasing experience, the fear of operating on the patient who is currently on steroid therapy has diminished a good deal, and it has become possible to operate on patients while maintaining steroid therapy throughout the procedure. In some instances there may be an apparent difficulty in wound healing if the patient is on steroid therapy.

MODERATOR CROHN: *Dr. Garlock!*

DR. GARLOCK: We have heard many stories about delayed wound healing and sudden collapse occurring on the operating table during the course of colectomy or the performance of ileostomy, yet we are seeing an increasing number of patients being treated preoperatively with steroids who must be operated upon subsequently.

I am frank to confess that I have been somewhat alarmed by the indiscriminate use of steroids and the unpredictable response of patients to major surgical procedures. I have in mind a patient who returned to the hospital the day before yesterday after a satisfactory recovery from a subtotal colectomy and ileostomy, who had been on steroid therapy and left the hospital after discontinuance of the steroid therapy. She was readmitted in adrenal collapse four or five days after she left the hospital. It was Dr. Crohn's quick recognition of this, followed by the administration of the proper remedy, that brought her out of her severe shock. I believe we are going to see more and more of this sort of thing unless we adopt preventive measures. These measures, I think, should include a continuation of steroid therapy both during operation and during the postoperative period followed by a gradual weaning process. How long this weaning process should take, I am sure I don't know, but I must admit I have many fears about the reaction of patients to surgical procedures after steroid therapy. The complete answer has not been given as yet.

MODERATOR CROHN: *I, too, don't know the full answer, but I have been very much interested in this question of so-called adrenal exhaustion due to cortisone therapy when patients are on the operating table. I don't know the physiology of it, but I see Dr. Gabrilove in the*

audience, and perhaps he, as an endocrinologist, can give us explanations concerning the action of ACTH and cortisone upon the adrenals and why the risk of operation is then so much greater. Dr. Gabrilove, will you explain to us the physiology and the effect of cortisone and why surgical risk should be greater?

DR. J. L. GABRILOVE: The adrenal cortex is driven by the elaboration of adrenal corticotropin from the adenohypophysis. If one administers glycogenic corticoids such as cortisone or hydrocortisone, or its derivatives, including the fluoro derivatives or prednisolone, one inhibits the pituitary elaboration of corticotropin. Therefore the pituitary elaboration of this hormone is set at rest. The adrenal is no longer driven and undergoes atrophy. If during this period of time, following the administration of adrenal cortical steroids and subsequent atrophy of the adrenal cortex as the result, one were to stop adrenal cortical steroid therapy and were to subject these patients to stress, we would find that the increased requirements for adrenal cortical steroids to combat this stress would be inadequate. As a result, the patient would develop a peculiar type of shock, which we have come to recognize as specific shock seen in adrenal cortical insufficiency which results in death. This was best demonstrated in patients with Cushing's syndrome who had had tumors, who were operated on a number of years ago. In these patients the tumor elaborated large amounts of glycogenic corticoid. Through a similar physiological mechanism the contralateral adrenal cortex was set at rest and atrophied. Following removal of the tumor the patients then died in 18 to 24 hours in shock, a shock unresponsive to the usual therapeutic measures of transfusion, plasma and intravenous fluids. Following the introduction of specific adrenal cortical steroids, particularly those available for parenteral use and specifically intravenous hydrocortisone, it was found that these patients could be saved by preparing them with large amounts of glycogenic corticoids preoperatively or, at the time they went into collapse, by the administration of large amounts of hydrocortisone intravenously. So I think the lesson that we have learned from this collateral evidence is that patients who are on adrenal cortical steroids may be operated on safely but that it is an error to discontinue steroids. We must treat these patients as if they had adrenal cortical insufficiency and since following operation their requirements are markedly increased, steroid administration must be *increased* rather than decreased. Following such a procedure, employing

large amounts of adrenal cortical steroids, similar to that used following adrenalectomy, you will find that the operative risk in these patients is no greater than in the ordinary patients with ulcerative colitis.

MODERATOR CROHN: Thank you very much, Dr. Gabrilove.

I should like to add that I understand it takes at least two or three weeks for the adrenal gland to regenerate itself after adrenal exhaustion, so that in the emergency of the shock of operation, cortisone must be replaced at the time. Intravenous Cortef is what is usually used on the operating table.

Is a gluten free diet of any use?

DR. ENGEL: Not to my knowledge; I don't know if anybody has tried it. I think there is always a non-specific effect of any technique of treatment you use. The evaluation of any new technique is fraught with great difficulty and I am interested to know, for example, that Dr. Crohn feels so strongly about ACTH. I wonder whether he does not underemphasize the weight of his name to his patients, that this is a complex of the adrenal cortex plus Crohn in the patient's eyes. I am not saying this facetiously because I think the significance of the physician who prescribes the medication is of great importance and that the physician who does not believe that ACTH or cortisone is a very good technique is bound to have much poorer results with it.

DR. GARLOCK: Mr. Chairman, I would beg to disagree thoroughly with that last statement!

MODERATOR CROHN: I too!

DR. GARLOCK: There is no question about the fact that, since the advent of ACTH, the picture of the clinical course of acute fulminating ulcerative colitis has changed markedly compared with what it was before. As Dr. Engel may remember from his association with our hospital not too many years ago, it is very rare for us to have to do an emergency ileostomy. With the use of ACTH we can now get these patients into better shape and do the ileostomy at a time of our own choosing, not as an emergency and as a last-resort measure. I think that has been the experience all over the country and I don't attribute it either to Dr. Crohn's presence or to any of the other doctors who are associated with the patients. However, I would like to stress again what Dr. Engel has said about the doctor-patient relationship and the successful care of ulcerative colitis patients. I think this also applies particularly to the surgeon. In my opinion, no surgeon will be

successful in the surgical care of the ulcerative colitis patient unless he accomplishes exactly what Dr. Engel has recommended, namely, a transference to the surgeon away from the mother, as Dr. Crohn has also emphasized, so that the patient begins to lean on the surgeon. Our best results have been obtained in that group of patients who accomplish such transference and we try to make it a regular part of the treatment. The surgeon must become an amateur psychiatrist himself but of a different variety than that of which Dr. Engel is talking.

I will cite one episode, if I may, which is the most dramatic I have ever known. This concerns a girl on the ward service of the hospital who had had an ileostomy and subtotal colectomy. I casually mentioned to her on rounds one day that I was going away on vacation in two weeks. From that day on she began to ulcerate the skin around her ileostomy. This progressed so rapidly that the day I left it measured about four inches across and finally extended to involve almost the entire abdominal wall. During my absence every known remedy was tried. They invited Dr. Frank Meleney down from Presbyterian Hospital because they thought this represented a microaerophilic streptococcus infection. Nothing that was used seemed to help in the slightest degree. One day one of my associates told her that I was returning on a certain date and from that day on the wound began to heal. It healed spontaneously within two weeks after I had returned. I cite this as an unusual example of what Dr. Engel was talking about. If I had not seen it with my own eyes I would not have believed it.

DR. ENGEL: I think we agree about too many things, Dr. Garlock, for me to leave the impression that I don't think the steroids are useful. There are many situations that have already been described in which they are extraordinarily useful. But my observation has been that with the second or third relapse, they become less effective. I believe that has been reported in the literature too. Dr. Flood may know that data better than I.

DR. FLOOD: Yes, I think that is true, Dr. Engel.

DR. ENGEL: This is not due to a pharmacologic change, but it has to do with the different expectation, the different readiness on the part of the patient, in the subtle sense, as Dr. Garlock has just described, in how he responds to the drug. It does not undo the pharmacologic effect but it is still different. The first time given, the patient responds quickly to the drug-induced improvement with a tremendous upsurge

of optimism and confidence in the doctor. This combination has a powerful therapeutic effect and is felt by the patient (and sometimes the doctor, too) as almost magical. Often the patient equates this with cure, so when a relapse occurs, the patient suffers an additional disappointment. On the second occasion the magic is gone and only ACTH is left.

MODERATOR CROHN: I think you are quite right, Dr. Engel, in both ways. The most interesting case I ever witnessed was that of a girl of 17 who had been raped during the war. Within 24 hours she developed the most severe fulminating ulcerative colitis that I have ever seen. After a few days, when she was reassured that she had no venereal disease and was not pregnant, she made a very rapid recovery. I think that is a most striking incident in which the psychosomatic insult produced the disease and the events following psychotherapy caused a cure of the malady.

I have two more questions, if we can confine ourselves to brief answers. Dr. Flood, is ulcerative colitis associated with arthritis and what would be the effect of a radical operation?

DR. FLOOD: Multiple arthritis is a common accompaniment of nonspecific ulcerative colitis. As I understand it, from those who have studied the type of arthritis which occurs in this disease, it resembles but is not identical with rheumatoid arthritis. In most instances it is characterized by pain in multiple joints without the development of any marked deformities. Marie-Strümpell's arthritis is also a rather common accompaniment of ulcerative colitis. Removal of the colon in patients with arthritic symptoms usually is followed by a relief of those symptoms.

MODERATOR CROHN: In my experience, complete and prompt relief.

There is one more question addressed to Dr. Garlock. Someone in the audience wants to know whether Dr. Garlock believes the total colectomy and ileostomy should be accomplished in one stage, as advocated by some of the more radical surgeons throughout the country, or whether he limits himself to ileostomy and partial colectomy?

DR. GARLOCK: This is also a "spiked" question. All I can say is that I have not been impressed by this radical approach as the method of choice in the surgical treatment of ulcerative colitis. If this philosophy were to be universally adopted, we would note an enormous morbidity and mortality. I am afraid it will still be necessary to exercise the best surgical judgment to choose the appropriate operation for the specific

situation at hand. As my experience increases, I become more convinced that we have made errors in the direction of trying to do too much at one sitting. I still believe very definitely that there are many patients who should be accorded the operation of ileostomy alone without any attempt to take out the colon. If we remember this we will lose fewer patients than by going overboard on the so-called radical maneuver that is being advocated in some quarters. Of course, if you have a patient with chronic ulcerative colitis who is not too debilitated and who can withstand a subtotal colectomy, it does not take too much extra time to take out the rectum also. However, I am very much opposed to four to six hour operations in the treatment of ulcerative colitis.

DOCTOR: I am interested particularly in the case where hemorrhage is the predominating factor. How far would you go?

DR. GARLOCK: It all depends upon the condition of the patient at the time of operation.

DR. ENGEL: May I reverse the procedure and ask someone in this audience a question?

MODERATOR CROHN: Yes.

DR. ENGEL: I see Dr. Lyons in the audience. I know he has had great interest in ileostomy clubs, and others might be interested in this too. Where patients have been active in the clubs for five or six years, what is the morbidity rate among patients both in respect to the development of complications of ileostomy including ileitis, and in respect to other types of illnesses? Does he have any impressions about the morbidity and mortality of this group of patients versus the ileostomy patients who do not participate in this type of social group? I have the feeling that the ileostomy clubs have provided a very significant type of interpersonal relationship which may be a major health-securing factor to these patients.

MODERATOR CROHN: *Dr. Lyons, would you like to come to the platform and answer that question? I believe most of our members in the ileostomy club have had colectomies rather than simple ileostomies.*

DR. LYONS: Regarding the complications of stoma, the figures vary according to the section of the country from which reports come and the way one evaluates complications, but I would say about one out of three ileostomy patients has some major complication. However, the mortality from these major complications is not high.

As far as the second question is concerned, I would say of course

it makes a great deal of difference whether a patient has a relationship with other individuals with ileostomy. There are now over a dozen ileostomy clubs in this country and in Great Britain, and so, really no patient who has an ileostomy should be prevented from having this experience of attending meetings with other ileostomy patients. Unquestionably they not only do better surgically but they also become useful individuals whereas sometimes, when left to their own devices, they are miserable and useless.

MODERATOR CROHN: That, I think, is important.

I was interested to hear Dr. Flood say that he also was having experience with ileitis and ileo-jejunitis following ileostomy and colectomy, something which is quite new in medicine. Have you noted a fairly high incidence and had a large experience with that, Dr. Flood?

DR. FLOOD: You mean in patients who have had a colectomy?

MODERATOR CROHN: *That is right.*

DR. FLOOD: And have an ileostomy?

MODERATOR CROHN: *Who previously did not have ileitis.*

DR. FLOOD: I don't think I can quote figures, but it is a common problem in our experience.

MODERATOR CROHN: *Isn't that astonishing! That is new, isn't it?*

DR. FLOOD: It is a very difficult situation to manage. There are many things which happen in the terminal ileum, after ileostomy, which are poorly understood. One of the commoner complications is something which has been called ileismus, that is to say abdominal cramps, and which produces discharge from the ileum for a period, and this appears commonly in the early period after operation in many patients. Other individuals may develop frank evidence of ileitis or even perforate. Whether these patients have had a certain amount of ileitis unrecognized at the time of operation is not agreed upon. Whether it represents an extension of the disease upward after the operation is another possibility, but the events that go on in the ileum after ileostomy are very difficult to understand.

MODERATOR CROHN: It is time to close this meeting and I should like to thank the panelists for their cooperation and the audience for its attention and interest.